

It is much to be regretted that the few species which are legitimate objects of pursuit by sportsmen, like the Hawaiian Goose, Hawaiian Duck, and the Plover and Turnstone, are becoming scarcer and scarcer every year. Yet it is at least to be said that these birds serve as food, and hence are not entirely wasted. No such excuse, however, can be urged in defence of the slaughter of such birds as the Hawaiian Stilt, Night Heron, Mud Hen (*Gallinula*), and Coot (*Fulica*). These birds, though occasionally eaten by the natives and Portuguese, are too 'gamy' for most palates, and are usually shot and thrown away, with the natural result that they have been quite exterminated in many localities and are becoming scarcer and scarcer in all districts.

PRESERVING EQUILIBRIUM BY THE USE OF ONE WING.

BY WILLIAM HUBBELL FISHER.

Plate VII.

I WAS at the Brown Palace Hotel, in the city of Denver, Colorado, from March 14, 1902, until the 21st day of the following May, and occupied a room on the seventh floor, about ninety feet above the pavement of the street. There I quite frequently fed the House Finches (*Carpodacus mexicanus frontalis*) of the neighborhood with bird seed spread upon my window sill. These birds became quite familiar. Often as many as twelve or fourteen of them were upon the sill at once. As the spring advanced, they came in pairs, and it frequently happened that a hungry pair having taken possession of the seed would drive off all the others until they had satisfied their appetites. In driving off the other birds, this pair would often meet with great opposition, and frequently severe combats occurred, often in mid air. I have pictures of the birds one darting down upon another as a hawk does upon his prey. At other times, the possessors of the locality would drive the intruders to the edge of the sill, and would often push off the intruder. Two of my instantaneous photographs reveal the

fact that when a bird — an intruder — had been thus driven to the edge of the sill and was being pushed off, he used one wing to keep himself from being forced into the air, the other wing not being in use.

On such occasions, the attacking bird would rush at the intruder and drive him almost off, and push him to the edge of the sill, and then as quick as a flash, in a nonchalant way, return and get ready to eat again the bird seed.

I have the pleasure of presenting a copy of one of the photographs thus taken, which illustrates such use of a single wing. The photograph was taken with a focal plane shutter. The movement of the wing must have been very rapid, as I did not observe it with the naked eye. The bird is evidently using the air to prevent its being forced off the sill somewhat as a man would use his arm against a post when being forced down a declivity. In illustration of this, I submit a photograph of two boys, one pushing the other down a declivity in Eden Park, Cincinnati.

I am aware that in the case of pigeons, where two males are fighting, the birds use only the wing next to their opponent. They strike their opponent over the back or head with the single wing with great force, the wing being returned with wonderful celerity to its place at the side, the other wing not being in use, but I have never before observed the use of a single wing to prevent the bird from being thrown into an abyss, as in the present instance.

I have another photograph of a House Finch, when driven to the sill, using the outer wing only for the same purpose. In this second instance, the outer wing is the left one.